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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/023,010

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Barrie Alan Hadfield

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PERKINS COIE LLP

P.O. BOX 2168

MENLO PARK, CA 94026

EXAMINER

NGUYEN, MAIKHANH

ART UNIT

PAPER NUMBER

2176

MAIL DATE

DELIVERY MODE

05/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/023,010 | Applicant(s) HADFIELD ET AL. | |
| | Examiner Maikhanh Nguyen | Art Unit 2176 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-26,30-35 and 63 is/are pending in the application.
- 4a) Of the above claim(s) 16-21,30-35 and 63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the Election filed 02/19/2008.

Applicant's election without traverse of Group II (claims 22-26) in the reply filed on 02/19/2008 is acknowledged.

Claims 22-26 are elected for examination. Claim 22 is an independent claim.

Claims 16-21, 30-35, and 63 are withdrawn from consideration.

Applicant is required to cancel non-elected claims 16-21, 30-35, and 63 in the next response to this office action.

Request Continuation for Examination

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous

Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/09/2007 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moody et al.** (U.S. Patent No. 5890177) in view of **Williams et al.** (U.S. Patent No. 6513050).

As to claim 22:

Moody discloses a method, using a computer system, for generating a response to an unedited replica of an original document sent by a managing author to a contributing author for review (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to edit copies of original documents), comprising:

- forming a revised replica by editing said unedited replica (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to edit copies of original documents);
- partitioning said unedited replica into a first plurality of segments (see Figures 1- 5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system divides original documents into sections for comparison to sections of edits of original documents);
- sorting segments of said first plurality of segments into a binary tree based on a comparison operator (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 Moody discloses this limitation in that the document editing system compares sections of original documents with sections of edits of original documents);
- partitioning said revised replica into a second plurality of segments (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system divides edits of original documents into sections for comparison to sections of original documents);

- for a segment of said second plurality of segments, finding a best match in said binary tree to form a block of at least one matching byte (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system compares sections of edits of original documents with sections of original documents to find matches); and
- creating a difference file comprising said block, wherein said difference file is stored in memory to be transmitted to the managing author (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system uses the comparisons to create paragraph sets illustrating differences between original documents and edits of original documents).

Moody does not specifically teach “sorting segments of said first plurality of segments into a binary tree based on a comparison operator; and for a segment of said second plurality of segments, finding a best match in said binary tree to form a block of at least one matching byte.”

Williams discloses sorting segments of said first plurality of segments into a binary tree based on a comparison operator; and for a segment of said second plurality of segments, finding a best match in said binary tree to form a block of at

least one matching byte (see the Abstract; Figs 2 & 6; and Col. 7, line 8 through Column 12, Line 67].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Moody with Williams because it would have provided the capability for enhancing data contained in the checkpoint to be hierarchically derived and stored so as to minimize the required storage size and enabling representations of differences to be generated as efficiently as possible, given any arbitrary limit on checkpoint size.

As to claim 23:

Williams discloses extending said block by matching bytes on both sides of said block (see Col. 12, lines 20 – 67 and Fig. 12 & associated text).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Moody with Williams because it would have provided the capability for enhancing data contained in the checkpoint to be hierarchically derived and stored so as to minimize the required storage size and enabling representations of differences to be generated as efficiently as possible, given any arbitrary limit on checkpoint size.

As to claim 24:

Moody discloses a segment of said first plurality of segments is delimited by a delimiter (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system divides original documents into sections for comparison to sections of edits of original documents).

As to claim 25:

Moody discloses [a] best match [that] comprises an exact match (see Figures 1 - 5; see Column 1, Line 1 through Column 14; Line 40 → Moody discloses this limitation. in that the document editing system performs document comparison at the line and word levels).

As to claim 26:

Moody discloses [a] best match [that] comprises a partial match (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system performs document comparison at the page and paragraph levels).

Response to Arguments

4. Applicants' arguments filed 08/09/2007 have been fully considered but they are not persuasive.

Applicant argues in substance that Aiken does not teach sorting segments of a file into a binary tree based on a comparison operator in order to efficiently search for differences between an edited and original document (Page 12, 1st full ¶).

In response, the newly cited art (Williams) is combined with Moody to teach the claimed "sorting segments of a file into a binary tree based on a comparison operator in order to efficiently search for differences between an edited and original document" (see the rejection above).

Conclusion

5. The prior art made of record, listed on PTO 892 provided to Applicant is considered to have relevancy to the claimed invention. Applicant should review each identified reference carefully before responding to this office action to properly advance the case in light of the prior art.

Contact information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maikhanh Nguyen whose telephone number is (571) 272-4093. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached at (571) 272-4137.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2176

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. N./

Examiner, Art Unit 2176

/Doug Hutton/
Doug Hutton
Supervisory Primary Examiner
Technology Center 2100